

## **REMARKS**

Applicants have carefully reviewed and considered the Examiner's Action mailed September 21, 2006, in which claims 49-61 were allowed over the prior art of record and claims 47 and 48 were indicated as being allowable over the prior art of record if rewritten in independent form on page 4 of the Action. Reconsideration is respectfully requested in view of the foregoing amendments and the comments set forth below.

By this Amendment, claims 44-48 are amended. Indicated allowable dependent claims 47 and 48 are rewritten into independent form, and minor modifications are made to claims 45-46 to clarify the claimed invention. Accordingly, claims 44-61 are pending in the instant application.

Claim 44 was rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 7 of U.S. Patent No. 6,940,473 (hereinafter the '473 patent) as described on pages 2-3 of the Action. It is noted that page 3 of the Action mentions claims 45 and 46 and it is believed that these claims are included in the nonstatutory obviousness-type double patenting rejection. In view of the foregoing amendments to the claims, this rejection is respectfully traversed.

Claim 7 of the '473 patent is directed to a head-mounted display in which a three-dimensional image is displayed by displaying two -dimensional images on images planes located at different depth positions. However, the head-mounted display of the '473 patent for displaying the "three-dimensional image" is completely different from the phantom three-dimensional display device for displaying "a phantom three-dimensional image" as recited in claims 44-46 of the claimed invention. The term "phantom" is not found in the '473 disclosure. Paragraph [0360] of Published Application No.

2004/0164927 for the present application defines the term “phantom” for the instant application. The ‘473 patent does not disclose a head-mounted display that can show portions of a real image that are blocked from view as the claimed “phantom” display device of the present application can.

The principle three-dimensional image configuration of the ‘473 patent is shown in Figure 5-8 of the ‘473 patent. For example, as shown in Figure 5, when a three-dimensional object 104 (shown in Fig. 4) is on plane 101, the brightness of the two-dimensional image 105 on plane 101 is set equal to the brightness of the three-dimensional object 104, and the brightness of the two-dimensional image 106 on plane 102 is set to zero.

Another example, as shown in Figure 7, when the three-dimensional object 104 of Fig. 4 is located at a position further away from plane 101, the brightness of the two-dimensional image 105 on plane 101 is lowered, and the brightness of the two-dimensional image 106 on plane 102 is raised. Thus, claim 7 of the ‘473 patent discloses a technique where a third means switches the two-dimensional images 105, 106 on the planes 101, 102 and a fourth means raises the brightness levels of the two-dimensional images 105, 106.

As described above, the three-dimensional image of the ‘473 patent is featured in that the brightness of each of the two-dimensional images 105, 106 is changed according to the position of the three-dimensional object 104 by using the third means and the fourth means of claim 7.

In contrast, the phantom three-dimensional image in claims 44-46 of the claimed invention is not formed by changing the brightness of each of the two-dimensional

images located at different depth positions but is formed by varying light transmittances of a displayed three-dimensional image comprised of an aggregation of depth sampled images. In other words, the phantom three-dimensional image is displayed in a depth direction in advance, and then the displayed phantom three-dimensional image is shut partially in the depth direction by controlling selection of shutter elements arranged at depth positions in a time division manner so as to vary the light transmittances of the displayed phantom three-dimensional image in the depth direction.

Further, claims 44-46 of the claimed invention feature a shutter device that has a control means for controlling selection of shutter elements. The selection is controlled using a digital operation manner that is defined as transmitting/non-transmitting or transmitting/scattering. In other words, each of the shutter elements can be selected in a time division manner based on the control of the control means.

In contrast, claim 7 of the '473 patent discloses a fourth means for changing the brightness levels of the two-dimensional images. In this case, brightness levels are controlled in sequence but cannot be controlled in a digital operation or time division manner.

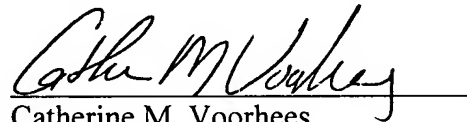
As per the above-described operation, in consideration of the recitation of "in a time division manner", the principle of operation of the shutter elements in claims 44-46 of the claimed invention is completely different from the principle of operation in claim 7 of the '473 patent, which changes brightness levels of the fourth means. Accordingly, it is submitted that claims 44-46 are patentable distinct from claim 7 of the '473 patent and withdrawal of the non-statutory rejection is respectfully requested.

It is respectfully submitted that this Amendment After Final Rejection places the application in condition for allowance; does not raise new issues that require further consideration and/or search as claims 48 and 49 are rewritten into independent form and minor modifications are made to claims 44-46; and do not raise issue of new matter. Accordingly, Applicants respectfully requests that this Amendment After Final Rejection be entered and this application be passed to issuance indicating that claims 44-48 and previously allowed claims 49-61 are allowed over the prior art of record.

Should the Examiner believe that a conference would advance the prosecution of this application, he is encouraged to telephone the undersigned counsel to arrange such a conference.

Respectfully submitted,

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Catherine M. Voorhees  
Registration No. 33,074  
VENABLE LLP  
P.O. Box 34385  
Washington, D.C. 20043-9998  
Telephone: (202) 344-4000  
Telefax: (202) 344-8300

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